AN ACCOUNT OF THE Epidemical Catarrhal Fever, COMMONLY CALLED THE INFLUENZA;

As it appeared in the City and Environs of Durham, in the Month of June, 1782.

To which is prefixed, a DISCOURSE

On the Improvement of Medical Knowledge,

BY

P. DUGUD LESLIE, M. D. F. R. S.

With a LETTER to the AUTHOR,

On the INFLUENZA;

As it appeared at NEWCASTLE upon TYNE,

By JOHN CLARK, M. D.

LONDON:

Printed for S. CROWDER, Paternoster Row, and J. ROBSON, New Bond-street; A. GORDON, and C. ELLIOT, Edinburgh.

ADVERTISEMENT.

AT the time that the following obſervations, on the Influenza, were written, it was the author's intentions to give them a place, in a collection of Phyſical and Medical Eſſays, which he was then preparing to lay before the public. But his health, for ſeveral months paſt, having been ſo bad, as to oblige him to abandon every literary, and philoſophical purſuit, that required either thought or labour; he has now loſt all hopes of being ſoon able to accompliſh his original deſign. Deſirous, however, of affording all the aſſiſtance, in his power, to thoſe, who may wiſh to collect and tranſmit to poſterity, a full and faithful hiſtory of the late Epidemical Catarrh, the author is determined to withhold no longer, from the public, an account of the appearances which it exhibited in the city and neighbourhood of Durham.

To

To the account of the Influenza, the author has prefixed a Diſcourſe on the Improvement of Medicine, in which he has not only endeavoured to aſcertain the chief cauſes that have conſpired to obſtruct its progreſs, but likewiſe to point out the moſt likely means of carrying it to as high a degree of perfection, as a ſcience of ſo intricate a nature, can be expected to attain.

AN

A

DISCOURSE

On the IMPROVEMENT of

MEDICAL KNOWLEDGE.

" Medicina adhuc taliter comparata eſt, ut fuerit
" magis oſtentata, quam elaborata; etiam magis
" elaborata, quam amplificata; cum labores in
" eam inſumpti, potius in circulo, quam in
" progreſſu, ſe exercuerint."

BACON. De Augment. Scient.

DISCOURSE

On the Importance of

MEDICAL KNOWLEDGE.

" Medicina adhuc inter conjecturas est, ut Lucis
" magis alienum, quam ad certa; eliam magis
" incerta, quam amplicata; cum labores in
" hanc scientiam, potius in circulo, quam in
" progressu, fi exercentur."

Bacon, De Augment. Scient.

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DISCOURSE

On the IMPROVEMENT of

MEDICAL KNOWLEDGE.

IN an age, when the uſeful and liberal arts have attained a degree of perfection, unknown to former times; when the ſpirit of genuine Philoſophy has pervaded the moſt ſecret receſſes of nature, and diſſipated the miſts of ignorance and error, which ſo long darkened the face of ſcience, we cannot but lament that Medicine, an art beſtowed on man, for his comfort and preſervation, ſhould not have kept pace with the other branches of uſeful knowledge.

As man, indeed, is by nature mortal, no power of art can render him immortal. But no juſt concluſion can thence be drawn, either againſt the utility of Medicine, or the poſſibility of its farther improvement. If we conſider that near two-thirds of mankind fall victims to diſeaſe, before they even attain the meridian of life; and only caſt an eye on the prodigious numbers of every age and ſex, who either languiſh in ſlow lingering diſtempers, or ſuffer all the torture of unrelenting pain, we cannot certainly doubt that Phyſic, well underſtood, and judiciouſly applied, would prolong the lives of millions, and often afford at leaſt a temporary relief, to thoſe whoſe miſeries it cannot entirely remove.

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To what cauſes then ſhall we aſcribe the ſlow progreſs of a ſcience, which, if duly cultivated, promiſes ſuch ineſtimable advantages to mankind? The obſtacles which have concurred to retard the advancement of the healing art are many and various, but they may all be traced either to the difficulties attending the ſtudy, and practice of Medicine; or to the indolence, and often too mercenary diſpoſition of thoſe who, in every age and country, have practiſed it, as a lucrative profeſſion.

The ſtudy of Medicine is of that intricate and extenſive nature, that without a previous acquaintance with almoſt every branch of natural Pholoſophy, without a retentive memory, and a comprehenſive genius, no conſiderable proficiency can be made in it; and he,

who poſſeſſes not a more than common ſhare of ſagacity, joined to great coolneſs of temper, ſolidity of judgment, and an habit of nice diſcernment, will never practiſe the healing art, with any ſignal degree of ſucceſs.

There is likewiſe a train of diſagreeable circumſtances, inſeparable from the practice of Phyſic, which will ever prevent its being ſo generally cultivated, as the other liberal arts. Though a deſire of knowledge, implanted by nature in the human mind, leads man to the inveſtigation of truth, yet he ſeldom applies to any ſcience with ardour, which tends not both to his amuſement and emolument. But, he indeed muſt have an uncommon thirſt for knowledge, who, without any lucrative view, ſhall paſs his life in hoſpitals, ſhall wantonly expoſe himſelf

ſelf to the infection of contagious diſeaſes, and voluntarily ſubmit to behold the ſhocking ſcenes of anguiſh and diſtreſs, which daily occur to the Medical practitioner.

We are told that Pythagoras, and ſome other celebrated ſages of antient Greece, not content with teaching Medicine, as a branch of Philoſophy, and ſpeculating upon it in the ſchools, travelled from city to city, inſtructing and curing without reward, all who came to them. Hippocrates muſt have had ſuch exalted characters in view, when he, with enthuſiaſm, pronounces him, who is both a Phyſician and a Philoſopher, to be little inferior to the Gods*. But ſuch inſtances of ſub-

* Ἰητρὸς γὰρ φιλόσοφος, ἰσόθεος.

Περὶ ευχημοσυνης.

ſublime philanthropy, are not to be met with, among the Philoſophers, or the Phyſicians of modern times. In this mercenary and ſelfiſh age, I am afraid, the craft is more ſtudied than the art of Medicine.

The facility, with which worth and genius may be ſupplanted, by the ſpecious arts of inſinuation and oſtentation, has ever proved, to Phyſicians of a mercenary diſpoſition, a temptation too ſtrong to be reſiſted. In no other liberal profeſſion is it poſſible to impoſe ſo much on the judgment of mankind as to acquire fame and fortune, without ſome ſhare of real merit. In vain would a painter by his addreſs, and ſelf applauſe, attempt to convince the public of his ſuperior excellence, if the ſpecimens, which he exhibited of his ſkill and ingenuity, ſupported not his pre-

pretenſions to their attention and approbation. In vain would a lawyer expect to riſe to any eminence at the bar, without giving indubitable proofs of his abilities, knowledge, and diligence.

But in Medicine it is widely different. The public have no certain teſt, no infallible criterion, by which they can eſtimate a Phyſician's profeſſional merit. Thoſe only are the competent judges of his ſkill, who follow the ſame profeſſion, and it is rarely their intereſt to proclaim his fame. Hence, do we ſee Phyſicians, whoſe ſole claim to the confidence of the public, is derived from their addreſs, from the patronage of a great man, or a few lucky, but accidental cures, acquire riches and renown; whilſt men of real abilities, ſkill, and experience, but modeſt, unaſſuming, and unprotected by the great, live

live in obſcurity, neglected, and unrewarded for the pains which they have taken to render themſelves uſeful to the community, and worthy of their favour and ſupport.

It is true indeed, that, in the preſent age, Phyſicians ſeldom aſſume that air of ſolemnity, or affect that gravity of deportment and appearance of myſtery, by which vain pretenders were formerly wont to conceal their ignorance, and impoſe on the credulity of mankind; but the uncertainty of the reward due to merit, leads many to content themſelves with a ſuperficial knowledge of their profeſſion, and to think their time better employed in the acquiſition of the arts of inſinuation and addreſs, which bring equal reputation and emolument, with infinitely leſs labour and fatigue. Thus is a ſcience, which has

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for its object, health, the choiceſt bleſſing that heaven beſtows on mortal man, ſhamefully proſtituted, degraded into a mere trade, and rendered in the hands of mercenary Phyſicians, and unlettered Quacks, the inſtrument of his deſtruction.

Various other cauſes have conſpired to retard the advancement of the healing art, but none, I believe, hath ſo eſſentially hurt its intereſt, as the early diviſion of practitioners into the oppoſite ſects of Dogmatiſm and Empyriciſm. At a period when the viſionary doctrines of Plato and Ariſtotle, under pretence of teaching Phyſicians to reaſon with clearneſs and preciſion, had withdrawn their attention, from experience and obſervation, and inſpired them with the avowed preſumption of undertaking the cure of all diſeaſes, from a

knowledge of their proximate cauſe, Serapion ſtood forth, and with matchleſs arrogance, maintained that reaſoning is foreign to the art of Medicine. He inſiſted that experience is the ſole guide to ſafe and ſucceſsful practice, and pronounced their temerity fatal, who truſt, in any inſtance, to the direction of their underſtanding.

Such was the origin of the Empyric ſect, and it is difficult to determine, whether the ſtate, in which Serapion found, or that, in which he left Medicine, was the more unfavorable to its improvement. Be that as it may, it hath ſince continued a ſubject of ſerious debate in the ſchools of Phyſic, whether the Dogmatic, or the Empyric plan, leads to the more ſucceſsful practice.

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Whoever ſhall cooly and impartially weigh the merits of the queſtion, will hardly, I think, heſitate to pronounce both opinions, ſtrictly underſtood, to be equally unphiloſophical, and detrimental to the cauſe of Medicine. For whilſt the Dogmatiſt, blinded with his fictions, and inattentive to the obvious phænomena of nature, grounds his practice on vague hypotheſes, and viſionary ſyſtems; the Empyric, truſting with implicit faith in the infallibility of certain remedies, but deſpiſing all anatomical and phyſiological knowledge; and regardleſs of the circumſtances peculiar to his patient, undertakes the cure of diſeaſes totally unacquainted with their cauſes, and fully ſatisfied with barely knowing the genus to which they belong. The confuſion, the uncertainty, and the danger which

manifeſtly attend the practice of either ſect, ſufficiently point out the abſurdity of both: and muſt convince every Phyſician, who is wedded to neither party, that theory, without experience, or experience without reaſoning, is equally incapable of leading to a ſafe and ſucceſsful treatment of diſeaſes.

Experience is, beyond a doubt, the only ſolid baſis of Medical ſkill, and the practice which is not founded on it, may juſtly be regarded as uncertain and hazardous. But, without reaſoning, no uſeful experience can be acquired. What will the moſt extenſive practice avail the Phyſician, who neglects to inveſtigate the nature of diſeaſes; to mark their progreſs, and to compare the various ſucceſs of the remedies, which, on different occaſions, he has thought proper to employ? It

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is therefore, though a common, yet a very miſtaken notion, that ſkill is the neceſſary conſequence of long and extenſive practice. Unleſs a Phyſician be both a man of ſcience and ſagacity, he will derive little uſeful knowledge from his practice. Tumultuary and indigeſted obſervations ſerve only to confound and miſlead the undiſtinguiſhing practitioner. All who wiſh to reap advantage from experience, muſt ſtudy nature with unremitting aſſiduity; but the attention, and the diſcernment neceſſary, in obſerving the courſe of nature, in diſeaſes, fall not to the ſhare of every Phyſician. If Medicine ſhould ever attain any high degree of perfection, it can only be in conſequence of the accurate and faithful obſervations of ſagacious practitioners, and the cloſe inductive reaſonings of men of deep reſearch, quick diſcernment, and ſolid judgment.

judgment. Hence were the Empyrics, and the Dogmatiſts equally to blame; the former, becauſe they were ſo afraid of reaſoning, the latter, becauſe they were ſo fond of it.

It is, by all Philoſophers agreed, that our improvements in the arts and ſciences, muſt in a great meaſure depend on the number of facts that we can collect concerning them: now the juſt theory of an art will lead to the diſcovery of many uſeful truths, that would have otherwiſe for ever eſcaped our obſervation: and though by accident we may ſometimes ſtumble on important facts, without reaſoning, what will they avail us? It is only by the aid of reaſoning that we diſcover analogies, that we connect correſponding facts, and reduce them to general principles.

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Of all the arguments that have been urged in favour of the Empyric plan, one of the moſt ſpecious is, that among thoſe who ſtiled themſelves rational Phyſicians, the idleſt opinions have, in every age, had their abettors, and the moſt groundleſs fictions have been ſwallowed with credulity. But this objection to dogmatiſm, however juſtly it might formerly have been made, has now, it is hoped, loſt much of its weight.

In an age, when men are, in all ſcientific purſuits, actuated by the true ſpirit of Philoſophy, Medicine has little to apprehend from theory. Though fond of ſpeculation, we have learned to appeal to facts, and to admit thoſe doctrines only, as the foundation of practice, which are ſimple, obvious, and certain. Convinced of the

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intimate relation, which the ſciences bear to one another, we have ventured to extend our views beyond the contents of the materia medica, and are ambitious to be Philoſophers, as well as Phyſicians, "medicina enim in phi-"loſophia non fundata, res infirma "eſt*." By thus contemplating univerſal nature, we have diſcovered the neceſſity of cultivating Anatomy, Phyſiology, Mathematics, Botany, Chemiſtry, and every branch of natural ſcience. In ſhort we have learned that the arts and ſciences are all links of the ſame chain; and that like the various productions of nature, in the great ſcale of being, they all concur in forming one ſimple and general ſyſtem.

It was, from a full conviction, that the ſtudy of the healing art ſhould not be

* Baconus de augment. Scientiarum.

be ſeparated from that of univerſal ſcience, that the moſt celebrated philoſophers of antiquity taught it merely as a branch of natural knowledge: and to them is due the honour of reſcuing Medicine from the hands of quackery and ſuperſtition, and of raiſing it to the dignity of a liberal art. And in this enlightened age, no arguments are neceſſary to prove that every ſyſtem of Medicine, which is not founded on the general principles of natural ſcience, muſt be futile and fallacious.

No ſooner did Phyſicians diſcover the advantage, or rather the neceſſity of making themſelves acquainted with the different departments of natural knowledge, than they abandoned the ſmoother paths of ſpeculation, convinced that without purſuing the more humble, patient, and laborious method of in-

veſtigation, without collecting facts, without comparing them with ſcrupulous attention, and reducing them to general principles, their theory muſt be imperfect, their practice fluctuating and dangerous. The ſtudy of Medicine on this plan is manifeſtly a great and arduous undertaking, and ſhould therefore be attempted by thoſe only who have both capacity and inclination to go through with it. Vague theory and undigeſted obſervation ſerve only to bewilder the ſuperficial Dogmatiſt, and to endanger the lives of mankind.

Of the various cauſes which have proved detrimental to the advancement of Medical knowledge, few ſeem to have had ſo ſure and permanent an effect as a blind and ſervile deference to authorities: But ſince the ſpirit of a more enlarged Philoſophy aroſe, and

and that knowledge came to be more generally diffuſed, neither a ſuperſtitious veneration of antiquity, nor the ſanction of great names, has any longer the power to warp our judgment or to withdraw our attention, from obſervation and experiment. We have now learned to contemn theories which lead to no uſeful conſequences, or that have no foundation, but in the heated imagination of ſpeculative men. We have likewiſe the ſatisfaction to ſee that the load of learned rubbiſh, with which ſcience, for ſo many years, was encumbered and oppreſſed, is now, in a great meaſure, removed: and there ſeems, in every country, to prevail a general diſpoſition to expoſe, to deſerved ridicule, thoſe quackiſh and unworthy arts, which ſo long diſgraced literature.

It is now, by all Philoſophers, allowed that the only true method of promoting ſcience, is to communicate it with clearneſs and preciſion, and in a language, as much diveſted of technical terms, as the nature of the ſubject will admit. Of the happy effects of this plan, Chymiſtry furniſhes a ſtriking inſtance. That ſcience laid, for many ages, involved in the deepeſt obſcurity, concealed under a language intelligible to none, but a few adepts, and by a ſtrange aſſociation, frequently interwoven with the wildeſt religious enthuſiaſm. The Chymiſts of the preſent age, have the merit of reſcuing their art from that obſcurity, of diveſting it of the abſurd recondite jargon under which it had been ſtudiouſly concealed; and encouraged by the aſtoniſhing progreſs they have already made,

made, they carefully avoid every appearance of myſtery, and account their labours ſufficiently rewarded, if they can extend the boundaries of ſcience, and render their knowledge beneficial to the community.

All therefore who ſeriouſly wiſh to contribute to the improvement of Medicine, ſhould deliver their opinions in a language that every man of ſcience ſhall readily comprehend. The ſtudied uſe of cramp words, and of technical terms, betrays a degree of pedantry inconſiſtent with true genius, and real knowledge. The more pleaſing the channel through which uſeful information is conveyed, the deeper impreſſion will it make, and the more chearfully will it be attended to.

Inſtead of adducing many arguments

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to evince the ſuperior advantages of a Dogmatic plan, I ſhall content myſelf with obſerving, that it was by adding theory to experience, and experience to theory, that Sydenham, the Hippocrates of later ages, gained immortal fame. His example and writings firſt awakened the attention of Phyſicians, and convinced them that without a careful contemplation of phænomena, without a profound inveſtigation into the laws and operations of nature, in ſhort, without painful obſervation, guided by a juſt ratiocination, it is impoſſible to contribute, in any eſſential manner, to the improvement of Medical knowledge.

The authority and example of Sydenham, ſoon produced a happy change in the ſtate of Phyſic: Practitioners rouſed from their former lethargy,

gy, and encouraged by his ſucceſs, began to inveſtigate the nature of the diſeaſes peculiar to the climate, and the ſituation in which they lived. They collated and aſcertained facts, they detected the fallacy of the prevailing ſyſtems, and learned to reaſon with accuracy and preciſion. Their zealous deſire to improve Medical ſcience, led them, in every part of Europe, to form themſelves into ſocieties, with the laudable intention of collecting and tranſmitting to ſucceeding ages, ſuch facts and obſervations as tend to throw light on the animal œconomy, and on the treatment and cure of diſeaſes.

Senſible that Medicine is one of thoſe arts, whoſe progreſs can only be advanced by a multitude of concurring obſervations, Lord Bacon very juſtly aſcribes its low and defective ſtate, in

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his time, to the indolence of practitioners, whom he accuſes of neglecting to write, with care and accuracy, narratives of the more remarkable caſes that occur to them in practice*. Nor can we doubt that if this method, which is ſtrongly recommended by the father and founder of the Dogmatic plan, had been faithfully purſued by ſucceeding Phyſicians, the art of healing would, ere now, have attained a degree of perfection, that a long ſeries of years will hardly give to it.

It is therefore a duty incumbent on every Medical practitioner, who has at heart the improvement of Phyſic, and the preſervation of the human ſpecies, diligently to obſerve, and carefully to record the leading ſymptoms, the progreſs,

* De Augmentis Scientiarum.

greſs, the treatment, and the event of ſuch acute and chronic diſtempers, as happen to be accompanied with any unuſual circumſtances. But above all, he ſhould watch the riſe, mark the progreſs, aſcertain the characters, and inveſtigate the cauſes of the prevailing epidemics. He ſhould diligently compare them with the epidemics of former years; as alſo with thoſe of other ſeaſons and countries. He ſhould examine how far they agree, or diſagree, in their eſſential and leading ſymptoms, and judge from thence, whether a ſimilar, or an entirely different method of treatment ought to be purſued: and in a fair and candid manner, lay before the public the principles on which he proceeded, and the reſult of his practice, whether ſucceſsful, or unſucceſsful.

The Phyſician, who truſts entirely to memory, the treatment of the various complicated diſeaſes that come under his care, may indeed ſtand high in the eſtimation of an undiſcerning public, but I hold it impoſſible that his practice ſhould be really attended with any eminent degree of ſucceſs. Indolence and neglect, in this particular, betray an indifference to the acquiſition of ſkill and experience, that is highly culpable, and is the more dangerous in its conſequences, that it may be long indulged, without either detection or ſuſpicion.

To the foregoing general obſervations on the improvement of Medicine, I ſhall only add, that the raſh and haſty attempts of Phyſicians, to reduce it into the form of a complete and perfect ſyſtem,

tem, have contributed not a little to retard its progreſs. But however ill calculated to promote the true intereſts of Phyſic, this rage of ſyſtemyzing may be, it is the rock on which men of genius are apt to ſplit. Genius, naturally impatient of reſtraint, ardent and impetuous in its purſuits, delights in building with materials, that the mind contains within itſelf, or with ſuch as the imagination can create at pleaſure. But the materials requiſite to the improvement of the uſeful arts muſt be chiefly collected from without, by ſuch ſlow and patient obſervations as little ſuits the vivacity of genius. And hence it happens, that men of a warm and lively imagination, often deſpiſe the painful method of experimental inveſtigation, and wander heedleſs in the devious paths of fancy, and of ſpecu-

lation. To this cauſe, are owing the various contradictory ſyſtems, which at different periods have prevailed in the ſchools of Medicine. In each, we find that conjecture has been ſubſtituted for fact, and vague reaſoning for proof and demonſtration. The moſt obvious bad conſequence that ariſes from the haſty reduction of the ſciences into ſyſtems, is, that the attention is thereby withdrawn from particular reſearches, which alone can give riſe to particular diſcoveries.

It is then manifeſt, that Philoſophy, and the liberal arts, are much leſs indebted for their improvement, to men of a lively and creative imagination, than to perſons of a clear underſtanding, and ſolid judgment, who curbing the luxuriance of fancy, are contented to proceed, in all ſcientific purſuits, by

a cautious and painful analyſis. But though ſpeculation, ſubſtituted for obſervation, and experiment, has ever proved the bane of true philoſophy; yet when judiciouſly united to them, it not only tends to perfect the diſcoveries already made, and to extend them to a greater number of objects, but likewiſe furniſhes hints, which may lead to many new and important truths that would eſcape thoſe, whoſe views are confined to the obvious reſults of the experiments before them.

From what has been ſaid in the foregoing pages, it is ſufficiently manifeſt, that ſcientifical reaſoning can never claſh with experience; that on the contrary, it not only ſerves to confirm our experience, and eſtabliſh it on a ſecure baſis, but likewiſe ſhews us how to extend it, by a juſt analogy, to

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a greater number of caſes. We may even venture to affirm, that unleſs reaſon and experience go hand in hand, the healing art will never arrive to that degree of perfection, to which we ſincerely wiſh, and hope it may ſoon be carried.

An Account of the

Epidemical Catarrhal Fever.

As it appeared at

DURHAM, in June, 1782.

OF Epidemics ſimilar to the late Catarrhal Fever, various inſtances are recorded in the annals of Phyſic, of this kind three are accurately deſcribed by Huxham*, and three alſo have occurred within our own memory †. But in no Medical writer do we read of any epidemical Catarrh, unleſs perhaps that which raged in 1732-3, that ſeems to have ſpread ſo widely, and prevailed ſo univerſally, as the Influenza of the preſent year.

It

* De aere et morbis epidem.

† In 1762, 1767, and in 1775.

It is not, I believe, certainly known, in which quarter of the globe, this diſeaſe firſt aroſe. By ſome it is ſuppoſed of European, by others of Aſiatic origin. Both opinions are ſupported by a variety of plauſible arguments; but as the queſtion appears to me of too little importance to deſerve a ſerious diſcuſſion, I ſhall hazard no conjectures on the ſubject, but content myſelf with obſerving, that we have no authentic accounts of the Influenza, before it appeared at Peterſburgh in the beginning of February laſt.

From Peterſburgh it ſpread with aſtoniſhing rapidity over the whole Ruſſian empire, and all the northern parts of the continent. It was imported to London about the middle of the month of May, but reached not Durham till

8th

the 7th or 8th of June. It raged here with unuſual violence, and prevailed ſo generally, that hardly one perſon in fifty eſcaped its attack. It began to abate about the 18th, and in a few days entirely diſappeared in Durham, but continued for ſome time to afflict the neighbouring villages.

So many and various were the phænomena, which marked the invaſion, the progreſs and termination of the Influenza, that, in order to deſcribe them with accuracy and preciſion, all pretenſions to brevity, and to ſyſtematic order, muſt be given up. But notwithſtanding the apparent diverſity of ſymptoms with which this epidemic made its attack, the conſtant and uniform concurrence of certain characteriſtic Catarrhous affections, ſufficiently ſhew-

ed that there was no ſpecific difference in the nature of the diſeaſe.

The difference in the degrees of violence and of danger, with which the Influenza attacked different people, was ſo very great, that thoſe who were ſeized with it, may properly enough be divided into three diſtinct claſſes. In the firſt claſs, which very fortunately comprehended the greateſt number of patients, the diſeaſe was attended with ſo few troubleſome or painful ſymptoms, that no Medical aſſiſtance was found neceſſary, and after the firſt day moſt were able to follow their uſual occupations. In the ſecond claſs, the diſeaſe was uſhered in with all the uſual concomitants of fever, and the patient was not only confined to the houſe, but generally to bed.—But it was only in the

the third and laſt claſs of patients that the ſymptoms ran ſo high, as to portend real danger.

I ſhall now proceed to deſcribe theſe different ſtates of the diſeaſe, but as the firſt came rarely under my obſervation, and more eſpecially, as it ſeemed to differ in no eſſential circumſtance from the ſimpleſt ſpecies of common Catarrh, I ſhall take no farther notice of it, but immediately go on to the ſecond ſtate.

Of this ſtate of the Influenza, the firſt ſymptoms were ſuch as uſually attend all febrile attacks: languor, laſſitude, diſinclination to motion, frequent and alternate returns of hot and cold fits, attended with a dull pain and ſenſe of weight in the forehead, and ſometimes with vertigo. To theſe generally

ſucceeded an unuſual heat and fulneſs of the eyes, a ſtraitneſs and redneſs of the noſtrils, ſneezing, the defluxion of a fluid from the mucous membrane of the noſe, ſo extremely ſharp and acrid, as not only to excoriate the inſide thereof, but even to produce not unfrequently ſome degree of inflammation of the uvula and tonſils, and to keep up a conſtant irritation about the Larynx. In ſome the cough was one of the firſt ſymptoms, but in general it began only to be troubleſome at this ſtage of the diſorder. The pulſe from the beginning was, in moſt patients, much quicker and fuller than natural, the tongue white and furred, but ſeldom dry or parched, and the heat of the ſkin by no means ſo great as might have been expected, where the febrile ſymptoms ran ſo high. In moſt Patients I obſerved a very conſiderable exacerbation of the fever towards night,

which

which in the weak and irritable, was ſometimes accompanied with a ſlight delirium. After a few days, the cough, which at firſt was hard and dry, became gradually more free and looſe; and in leſs than a week, an eaſy and copious expectoration of thick concocted mucus took place. The Influenza, however, was not in all attended with cough. Many had every other pathognomic ſymptom of catarrhal fever, without being, at any period of the diſeaſe, affected with cough. But I generally obſerved that thoſe people who eſcaped the cough, had of all others the greateſt diſcharge from the noſe and eyes.

Such was the general courſe of the ſecond ſtate of this epidemic, neither tedious, nor dangerous, where the conſtitution was ſound, and the patient not far advanced in life. But in the third

and

and laſt claſs of patients, the Influenza was attended with dangerous affections of the vital organs, which in ſeveral inſtances, proved fatal.

The beginning of the third was not very different from that of the ſecond ſtate of the Influenza, but in a day or two after the firſt attack, every ſymptom was greatly aggravated. The head ach became more violent, the cough more troubleſome, the thirſt more intolerable, and the pain, occaſioned by the cough, under the ſternum, either increaſed and ſhot through between the ſhoulders, or ſhifted to one ſide, where it became fixed, produced difficult reſpiration, and other ſymptoms of pneumonic inflammation.

Of five patients, whom I attended labouring under the catarrhal fever, complicated with Pleuriſy, two died;

died; and of four whom I found afflicted with peripneumonic ſymptoms, one only recovered, two of them indeed were in the agonies of death when I firſt ſaw them; but of the third, a young man aged 18, I entertained very ſanguine hopes. His cough had abated much of its violence, the pain at his breaſt was almoſt entirely gone, his reſpiration became conſiderably freer, his ſtrength and appetite began to return, in ſhort he found himſelf ſo much better in every reſpect, that he ventured to take an airing in a carriage; he complained of no inconvenience from the motion, and returned in better ſpirits than he went out. But the following night he was ſuddenly ſeized with a violent oppreſſion at his breaſt, attended with great anxiety, and very laborious reſpiration, and in a few hours he expired. This happened about three weeks from the firſt attack, as he had

had had no cold ſhiverings, or any of the other ſymptoms, which uſually precede ſuppuration of the vital organs, it is probable this young man's death was occaſioned by an effuſion of ſerum into the bronchia, and cellular texture of the lungs.

The third ſtate of the Influenza was particularly ſevere on people in the decline of life, on thoſe eſpecially who were of a relaxed phlegmatic conſtitution, and ſubject either to the humid aſthma, or to an habitual cough. In the courſe of my practice, I had an opportunity of viſiting ſeveral perſons of both ſexes, who came under the above deſcription, and in ſix of them the diſorder was attended with every ſymptom of ſpurious peripneumony, all copious evacuations in ſuch patients were productive of the utmoſt danger. But ſuch was the acuteneſs of the pains in different

rent parts of the cheſt, and ſo great the difficulty of breathing, that it was by no means eaſy to determine whether true pneumonic inflammation was really preſent or not. Miſled by theſe ambiguous appearances, ſome unwary practitioners had recourſe to the lancet: of the ſix elderly people, whom I attended in the influenza, complicated with ſpurious peripneumony, three had been bled; but inſtead of receiving any relief, they from that moment began to ſink under the diſeaſe, and every attempt to ſupport the *vis vitæ* by warm cordials, and external ſtimuli, proved ineffectual.

The death of theſe patients was manifeſtly occaſioned by ſuch an effuſion of ſerum into the bronchia, and cellular texture of the lungs, as entirely overcame the powers of expectoration; whence ſuffocation neceſſarily enſued. To the other three perſons I was called

pretty early in the diſeaſe, and by the uſe of expectorants, opiates, and tonicks, they had all the good fortune to recover.

The loſs of ſtrength which attended every ſtage of the influenza, was much more conſiderable than is uſual in fevers of apparently equal violence and duration. Many who had not the diſorder in a very ſevere manner, complained of ſuch a weakneſs of the lower extremities, ſeveral days after every ſymptom of fever had left them, that they could hardly without aſſiſtance walk from one room to another; this, however, was ſeldom the caſe, unleſs where the diſorder had been carried off by very profuſe perſpiration *.

Though

* Huxham obſerves that this was the caſe in the catarrhal fever of 33, when the lancet had been imprudently uſed.

Though it was extremely common for prople, who had almoſt got the better of the influenza, to have either one or two relapſes, if they were not particularly careful to guard againſt the evening damps; yet I met with no inſtance of a ſecond attack of the diſeaſe, after a perfect recovery had taken place. But I had frequently occaſion to obſerve that a relapſe was more ſevere and of longer duration than the firſt attack.

No inſtance fell under my obſervation in which the influenza laid the foundation of pulmonary conſumption, unleſs where the lungs were already in a diſeaſed ſtate*. In three caſes where I

* Three months ago, when this account of the Influenza was written, the author little apprehended that he himſelf was to prove an exception to the above obſervation. But his caſe is now too evident to be miſtaken, he was ſeized with the Influenza ſoon after it appeared in Durham, but took nothing for it, till the febrile exacerbations

had for ſome time ſuſpected the formation of tubercles, ſuppuration now ſeems to have taken place.

From the above account of the Influenza, it appears that it prevailed more generally, and was attended with more dangerous and fatal effects in the city of Durham, than in moſt places of the ſame ſize in Britain. To what particular cauſe this ſhould be attributed is difficult to determine. Durham has been always ſuppoſed, and I believe very juſtly, one of the moſt heal-

bations in the night began to run very high. He then found it neceſſary to have recourſe to diaphoretic medicines, and when under the operation of theſe, he was unfortunately called up to the ſick ſeveral nights ſucceſſively; in conſequence of this, all his complaints were conſiderably aggravated, and a pain fixed in his ſide, which has baffled every remedy. As the cough, and hectic fever have been daily increaſing ſince the cold weather ſet in, he is adviſed by Dr Cullen, and ſeveral other medical Gentlemen of eminence, to paſs this winter in a warmer climate; and, in compliance with their advice, he propoſes ſetting out immediately for Liſbon.

healthy places in the kingdom. During the ſpace of ſix years, that I have reſided in it, the Influenza is the only diſeaſe that appeared deſerving the name of Epidemic. Nor is this more than what might reaſonably be expected from the dry and airy ſituation of the place, as well as from the ſmall number of inhabitants, in proportion to the ground it covers. How then ſhall we account for the Influenza having raged with much more ſeverity in Durham, than in places infinitely more populous, and more unhealthy?

The cauſe of the peculiar malignancy of the Influenza here, muſt, in my opinion, be ſought for in the ſtate of the air. The uncommon ſeverity of the weather had rendered the ſpring in this, as well as in every other part of the iſland, unuſually backward. From the beginning of March till the laſt

week

week in May, few days paſſed without ſnow, ſleet, or rain, and the wind, during that period, blew almoſt inceſſantly from the north or north-eaſt quarters. But for a week before the late Epidemic appeared in Durham, the weather was remarkably ſerene, the air dry and ſultry. Two accurate thermometers (Fahrenheit's ſcale) hanging in the ſhade vibrated, for ſeveral days before the Influenza broke out, and the whole time it prevailed, from 68° to 64°. This obſervation was taken at eleven in the morning, and three in the afternoon. It muſt however be obſerved, that the nights were frequently thick, hazy, and chilly.

Is it not therefore highly probable that ſuch a ſudden tranſition from very cold to very hot weather muſt have been attended with very deleterious effects to the human body? It will readily,

readily, I preſume, be granted that the ſudden relaxation produced by the continued application of a degree of heat to which the body had been ſo long unaccuſtomed, muſt not only have rendered it more ſuſceptible of the contagion, but likewiſe more incapable of throwing it ſoon off. Nor is it unreaſonable to ſuppoſe that the heat of the air would render the contagion more active, increaſe the ſeptic tendency of the fluids, and make all copious evacuations more dangerous. I am the more inclined to this opinion becauſe the blood taken from patients who had no evident marks of topical inflammation, inſtead of exhibiting a firm craſſamentum and buffy coat, as is uſual in catarrhal affections, was generally found to be in a diſſolved ſtate. The putreſcent tendency of the fluids was ſo manifeſt in ſeveral inſtances, that I found it neceſſary to recommend the peruvian bark and antiſeptics.

But

But whilſt I maintain that the temperature of the air contributed not a little to render the Influenza more ſevere and more fatal at Durham than elſewhere, I am by no means of their opinion, who aſcribe the production and propagation of this Epidemic to a particular diſpoſition of the atmoſphere. Various facts and arguments may be adduced to prove that the late catarrhal fever depended not on any ſuch conſtitution of the air, but was diſſeminated by contagious effluvia, and was as certainly a ſpecific contagion as the meaſles or the ſmall pox. The aſtoniſhing rapidity with which the Influenza ſpread over the greateſt part of Europe, is alone ſufficient not only to evince its contagious nature, but to ſhew that the contagion of Catarrh is, of all others, the moſt diffuſible.

But in order more fully to aſcertain the remote cauſes, and the ſpecific nature of the late Epidemic, it will be neceſſary to offer ſome general obſervations on the etiology of catarrhal fever in general.

The Catarrh is a diſeaſe, to which, as far as we know, the inhabitants of every climate are more or leſs ſubject, but it appears from obſervation that it prevails moſt in thoſe countries where great and ſudden changes in the temperature of the atmoſphere moſt frequently occur. Pathologiſts diſtinguiſh it into ſporadical, epidemical, and contagious. When Catarrh is produced by cold, it ſeldom affects many people at one time, and in this caſe, it is ſaid, to be ſporadical: But when it can be traced either to a particular conſtitution of the atmoſphere, or to a contagious

effluvia, it has always been obſerved to prevail epidemically.

The frequency of catarrhal affections, in the ſpring and autumn, evidently proceed from the great viciſſitudes, which, at thoſe ſeaſons, the temperature of the air daily undergoes in this variable climate. The immediate effect of any conſiderable degree of cold applied to the human body, is to check the cutaneous perſpiration, and in conſequence of this, there generally enſues a ſudden determination of the circulating fluids to the mucous membrane, which lines the noſe, the fauces, the trachea, and the bronchia. In this unuſual afflux of fluids to theſe parts, and in the inflammation, which in a greater or leſs degree always attends it, conſiſts the proximate cauſe of catarrhal fever.

But

But though the application of cold to the ſurface of the body when heated; or even the ſedative power of grief, fear, and of ſuch other depreſſing paſſions, as, by diminiſhing the nervous energy, induce an atony of the extreme veſſels, and lay the foundation of febrile ſpaſm, may ſufficiently account for ſporadical catarrh, it would be highly abſurd to aſcribe the late Influenza to any cauſe, which was not as general as the diſeaſe itſelf. Every circumſtance in the hiſtory of this epidemic tends to prove that it never could have been ſo widely diſſeminated by local or partial cauſes. It aroſe in a diſtant corner of Europe, it rapidly extended its baneful influence over countries, where we have every reaſon to believe both the ſenſible and inſenſible qualities of the air, to be extremely different wherever it came: it attacked indiſcriminately the young and the old, the

healthy, and the infirm, the chearful, and the melancholic.

But that no doubts may remain, whether the epidemical catarrh of the preſent year, was propagated by a particular diſpoſition of the air, or by contagious effluvia; let us compare the different ſeaſons in which it appeared in different countries: at Peterſburgh this diſeaſe began to prevail in the month of February, and at Durham about the 8th of June; that is, it raged at Peterſburgh during the coldeſt part of the winter, and at Durham during the hotteſt ſummer weather. Can there be any thing more improbable than that the ſame conſtitution of the atmoſphere ſhould be compatible with ſuch extremes in its temperature? It is much more conſonant to reaſon and analogy to ſuppoſe, that between the months of February and June there had occurred

every

every poſſible viciſſitude in the ſtate of the air.

Did it appear in the leaſt neceſſary, I could adduce ſeveral inconteſtable facts reſpecting the manner in which the Influenza was propagated over this part of the kingdom, all tending to ſhew that it reached different places ſooner or later, according as they had more or leſs intercourſe with the metropolis: an irrefragable argument that it depended not on the ſtate of the air, but was diſſeminated by the contagion of human effluvia. But whether the contagion was communicable by means of cloaths or other *fomes*, or whether it was inhaled with air contaminated by paſſing through the lungs of the infected, or received only by touching perſons afflicted with the diſeaſe, are queſtions which admit not of a demonſtrative ſolution; but from the ſingular diffuſibility of the contagion, it is reaſonable

nable to infer, that it was capable of being propagated in all theſe different ways.

We are equally puzzled when we attempt to account for the *modus operandi* of the contagion of catarrhal fever, as the febrile ſymptoms appeared not unfrequently before the catarrhal. I am, however, inclined to believe, that this ſpecies of contagion acts primarily as a ſedative, by diminiſhing the energy of the brain, and inducing a ſpaſm of the extreme veſſels; but by what particular law of the animal œconomy, the fluids are immediately and invariably determined to the mucous membrane of the noſe, fauces, and bronchia, I ſhall leave thoſe to explain who are leſs afraid to tread in the ſlippery paths of ſpeculation and conjecture.

I ſhould not have taken ſo much pains to aſcertain the contagious nature

ture of the late epidemical catarrh, did not the prevention of diſeaſes chiefly depend on a knowledge of their remote cauſes. How many thouſand Chriſtians at Conſtantinople and Aleppo have eſcaped the plague, the moſt dreadful of all epidemics, ſince they happily diſcovered that it is not diſſeminated by noxious *miaſmata* floating in the atmoſphere, but by the contagion of human effluvia only? They have found out that by ſhutting themſelves up, on the approach of the diſeaſe, and carefully avoiding all communication with the infected, however long and fatally the plague may rage around them, they run no riſk of catching the infection *. By purſuing a plan ſomewhat ſimilar, ſeveral families in this county entirely eſcaped the Influenza.

On comparing the late epidemical catarrh with that of 1732-3, as deſcribed

* Lobb on the plague. Ruſſel's hiſtory of Aleppo.

bed by Dr Huxham, we find that there are ſeveral eſſential circumſtances in which they differ*.

The blood in the Influenza of the preſent year, did not exhibit that inflammatory appearance which it ſeems to have done in the catarrh of 1732-3. The late epidemic was rarely attended with any conſiderable degree of vertigo or delirium; and never to my knowledge with abſceſſes in the ears, or impoſthumes of the throat; ſymptoms, which, according to Huxham, were extremely common in the above mentioned Influenza. The ſame author informs us that the diſeaſe proved chiefly fatal to infants, and elderly people. How fatal the late epidemic was to people advanced in years of a relaxed phlegmatic conſtitution, has been already

* Nux. de Aëre Mens. Feb.

ready ſhewn at ſufficient length. But with reſpect to children, the caſe was here directly contrary to Huxham's obſervations. Very few children in this place or neighbourhood had any attack of the diſeaſe, and, of thoſe who had it, I ſaw none in whom it was attended with danger*.

Dr Huxham in endeavouring to account for the cauſe of the catarrhal fever which prevailed in the year 1737, poſitively aſſerts that catarrh is always preceded and accompanied by a very thick and hazy ſtate of the atmoſphere, and never prevails epidemically but in the winter months. But how egregiouſly he was miſtaken in both theſe points, ſufficiently appears from the ſeaſon of the year, and the ſtate of the air, when

 the

* Huxham de aere et morb. epid. 1733.

the Influenza prevailed in Durham.* That ſuch a ſtate of the atmoſphere, as Huxham deſcribes, is by no means neceſſary to the riſe or propagation of an epidemical Catarrh, appears from ſome obſervations of Dr Whytt's, on a diſtemper ſimilar to the Influenza of the preſent year. In the months of September, 1758, an epidemical catarrh appeared in Edinburgh, which by the end of November had reached the moſt northern parts of Scotland; yet ſo remarkably mild and dry was the ſeaſon, that, according to Dr Whytt, the riſe of the diſtemper could not be aſcribed to any of the known qualities of the air†. The only material circumſtances in which the epidemic deſcribed by Dr Whytt

* Nam et præcedit hunc morbum ſemper, ac comitatur, craſſa admodum, humidaque atmoſphæræ temperies: nec graſſatur, unquam niſi menſibus hibernis. Obſerv. de aere, &c. 1737.

† London, Med. Obſerv. &c. vol. 2.

Whytt ſeems to have differed from the late Influenza, are, that the former was frequently attended with Diarrhœa and bleedings at the noſe, and the latter ſeldom, if ever with theſe ſymptoms. As to the method of cure, the ſame treatment ſeems to have anſwered in both epidemics.

The moſt favourable and moſt general termination of the late catarrhal fever was by perſpiration. This diſcharge was, in many inſtances, extremely copious. Several patients whom I attended, continued in a profuſe ſweat for 48 hours, without intermiſſion. About ten or twelve hours after the ſweat broke out, the defluxion from the noſe began to diminiſh, and ſoon became thicker and leſs acrid: the cough too abated of its violence, and an eaſy and copious expectoration took place in the courſe of a day or two. Such in gene-

ral was the termination of the Influenza when not attended with local inflammation, or ſpurious peripneumony.

It ſeems to be the general opinion of authors that catarrhal fever, whether produced by cold, or contagious miaſmata, is always attended with more or leſs of the phlogiſtic diatheſis. Hence Sydenham, Huxham, and moſt modern practitioners, recommend bloodletting, as the firſt and chief indication of cure. But though catarrhs from cold be generally accompanied with ſome degree of inflammatory diatheſis, this circumſtance ought rather to be aſcribed to the ſeaſon of the year, at which they commonly prevail, than to the eſſential nature of the diſeaſe. This obſervation will appear ſufficiently juſt to thoſe who have ſeen catarrhal fever complicated with evident ſymptoms

toms of putrefaction: of this ſeveral inſtances are recorded in authors, and two fell under my own obſervation in the late Influenza. Blooding was ſo far from being a general indication of cure in the late epidemic, that unleſs acute pains in the cheſt, difficulty of breathing, and other marks of topical inflammation were preſent, it was ſeldom employed without aggravating all the ſymptoms, and protracting the diſeaſe beyond its uſual courſe.

But though blood-letting was in general prejudicial, as well as all copious evacuations by ſtool, yet a ſtrict obſervance of the antiphlogiſtic regimen, that is, a total abſtinence from animal food from all ſpirituous and fermented liquors, and from every thing of a heating and inflammatory nature, was abſolutely neceſſary: a ſtrict attention to

theſe circumſtances joined to a plentiful uſe of thin diluting liquors, drank moderately warm, and laying in bed to encourage perſpiration, was generally found ſufficient for the cure of the firſt and mildeſt ſtate of the Influenza.

But in the ſecond ſtate of the diſeaſe where the febrile ſymptoms ran high, where the ſkin was hot and parched, the cough hard and frequent, and the diſcharge from the noſe, and fauces ſharp and copious, the indications of cure were, 1ſt. To take off the ſpaſmodic conſtriction of the extreme veſſels and to reſtore the determination of the blood to the veſſels on the ſurface. 2d, to obviate the effects of the irritation produced by the acrimony of the defluxion from the noſe and bronchia, and to promote expectoration.

1ſt. The

1ſt. The remedies beſt calculated to relax the ſpaſm affecting the extreme veſſels are thoſe which tend to reſtore the tone and activity of the ſanguiferous ſyſtem, and to determine the force of the circulation to the ſurface of the body: viz. *Diluents*, *Diaphoretics*, *Antiſpaſmodics*, and *Emetics:* but of theſe, the two firſt were the only remedies I had occaſion to employ in the cure of the late epidemic.

The ſalutary effects of a plentiful uſe of *Diluents*, in moſt febrile diſorders, have been long known to the Phyſicians of every country. In health, the fluidity of the maſs of blood depends upon the quantity of water which it contains; and in fever, though the cutaneous diſcharge be often conſiderably diminiſhed, yet there continues to exhale from the pores of the ſkin, from the ſurface of the

the lungs, and the other excretories, ſuch a quantity of the more fluid part of the blood, that the balance of circulation between the larger and ſmaller veſſels is often entirely deſtroyed. It is therefore manifeſt, that in order to prevent the balance of circulation from being deſtroyed, or to reſtore it when loſt, the moſt effectual means we can employ in either caſe, is to throw in ſuch a quantity of watery fluid, as ſhall ſupply the conſtant waſte. But though what has been juſt now ſaid, accounts in ſome meaſure for the beneficial effects of Diluents in febrile diſorders, yet it by no means explains the whole of their operation. Diluents have manifeſtly a power of producing a determination to the ſurface of the body, and of relaxing the ſpaſmodic conſtriction of the extreme veſſels, the *modus operandi* of which, Phyſicians have not

yet

yet been able to explain on any certain principles.

But in this ſeverer ſtate of the Influenza, I ſeldom found that Diluents alone were ſufficient to take off the ſpaſm, and reſtore the cutaneous diſcharge. In moſt inſtances, I was obliged to have recourſe to *Diaphoretics*, more active and certain in their operation: what ſeemed to anſwer beſt, was a plentiful uſe of the volatile or fixed alkali, ſaturated with the native acid of vegetables; when this did not produce the deſired effect, in the courſe of ſix or eight hours, ſome more powerful Diaphoretic was added. But, aware of the pernicious effects of all ſudorifics of a hot and ſtimulating nature, in every caſe of fever, Antimonial medicines were the only Diaphoretics I employed. I generally found that a drachm of An-

timonial wine added to a pint of the Saline mixture, when taken at ſhort intervals in ſmall quantities, rarely failed to induce, in the ſpace of five or ſix hours, a very copious flow of ſweat, which was eaſily kept up by frequently ſipping of thin tepid Diluents.

To ſome patients I gave ſmall dozes of James's Powder, to others a weak ſolution of the Emetic Tartar; and where the conſtriction on the ſurface did not readily give way, I frequently added Laudanum to the above Diaphoretics, which ſeldom failed to allay the violence of the fever, and to induce a profuſe perſpiration. I had likewiſe the ſatisfaction to find that an Opiate joined to an Antimonial was always attended with the beſt effects, in all caſes of great irritability of ſyſtem.

Whether

Whether the ſudorific method ought to be purſued in the cure of all fevers, is a queſtion involved in too many doubts and difficulties to be diſcuſſed here. It is ſufficient for my purpoſe to obſerve, that the moſt ſpeedy and moſt favourable termination of Catarrhal Fever, has always been obtained by perſpiration. This appears from the concurring obſervations of all the beſt authors on the ſubject: for though Phyſicians are not agreed whether obſtructed perſpiration be the cauſe, or the effect of catarrhal fever; or whether it be not ſometimes the one, and ſometimes the other, according as the diſeaſe is produced by cold, or by contagious effluvia, yet they all allow that till the cutaneous excretion be reſtored, no abatement of the catarrhal ſymptoms ever takes place.

Hence we perceive that in the cure of Catarrh, the firſt indication is to reſtore the cutaneous diſcharge, and, that till this be effected, all attempts to allay the cough, and remove particular ſymptoms, muſt prove vain and fruitleſs. The medicines moſt proper for this purpoſe I have already mentioned, but in order to aſſiſt their operation, and render their effects more certain and ſpeedy, I generally directed warm fomentations to be applied to the lower extremities, and to be continued for a conſiderable time. This method of promoting perſpiration appears to me preferable to the Pediluvium and Semicupium, both on account of the facility with which it may be repeated as often as neceſſary, and becauſe it is performed with leſs fatigue to the patient, and leſs danger of his catching cold,

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2d. The medicines which I employed to obviate the effects produced by the acrimony of the defluxion from the Noſe and Bronchia, and to promote expectoration were few and ſimple. Many patients received conſiderable benefit from frequently ſipping of a weak infuſion of Liquorice root, of Tuſſilago, Althæa, &c. in which was diſſolved a conſiderable quantity of Gum Arabic. But when the defluxion was ſo copious and acrid as to render the cough almoſt inceſſant, I generally found that fifteen or twenty grains of Volatile Alkali, and thirty or forty drops of Laudanum, mixed with four or five ounces of a thin ſolution of Gum Arabic, not only mitigated the violence of the cough, but had likewiſe a very ſenſible effect in promoting expectoration. A table ſpoonful of this julep was directed to be taken every half hour, as long as the urgency of the

the ſymptoms required it; and as the cough was, in general, much more troubleſome in the night than the day, this medicine was ſeldom had recourſe to before the return of the evening exacerbation. In ſome caſes, I gave ſmall doſes of the Oxymel of Squills joined to an opiate: and when opiates, in every other form, diſagreed with the patient, I ſometimes found the ſyrup of Poppies produce every effect I wiſhed for.

The third and laſt ſtate of the Influenza, was attended with ſuch various and anomolous appearances that it was impoſſible to lay down any general indications of cure. There were however two caſes, in this ſtate of the diſeaſe of ſo oppoſite a nature, that their method of treatment could not be confounded, without the moſt imminent danger of the patient's life. The two caſes

caſes I allude to, were thoſe of pneumonic inflammation, and of ſpurious peripneumony.

When the catarrhal affections were accompanied with a hard and dry cough, pains in the ſide, or at the breaſt, difficulty of breathing, and the uſual ſymptoms of pleuriſy, the ſame method of cure was purſued as in other caſes of pneumonic inflammation, with this difference only, that ſome attention was paid to the nature of the epidemic, that the lancet was not ſo freely uſed as in the caſe of ſimple pleuriſy, but that bliſters were more ſo, and almoſt always with manifeſt advantage.

The ſecond caſe was that of ſpurious peripneumony. The ſubjects of this ſtate of the Influenza, it has been already mentioned, were perſons in the de-

decline of life, and eſpecially thoſe of relaxed phlegmatic habits: the indications of cure, therefore, were to allay the cough, to promote expectoration, and ſupport the powers of life by bracing and gently ſtimulating medicines. To anſwer the firſt indication I generally had recourſe to the methods already mentioned, I mean to the uſe of the Volatile Alkali, and the Tinctura Thebaica, which, when properly and judiciouſly exhibited, ſeldom failed to abate the violence of the cough, and promote a free and copious diſcharge of mucus from the Lungs and Bronchia. Sometimes ſquills were employed, and ſeemingly with a good effect, and when the patient complained of any fixed pain, a bliſter applied near the part affected generally afforded relief. Bleeding, and all copious evacuations either by ſtool or ſweat were cautiouſly avoided; a

gentle

gentle perſpiration, however, was always kept up, and gliſters of cooling laxatives were uſed, as often as was judged proper.

The laſt indication of cure was to ſupport the ſtrength of the patient. The medicine I depended on chiefly for this purpoſe, was wine, which I directed to be added to the water gruel, the panado, or whatever elſe the patient was wont to take by way of nouriſhment. The wines, which were moſt frequently uſed, were red and white port, ſherry, and Liſbon, and the quantity was carefully proportioned to the degree of debility; the former habits of the patient, and the other circumſtances of the caſe. All medicines of a hot ſtimulating inflammatory nature were entirely rejected, and none employed, but ſuch as tended to ſupport the ſink-

ing powers of nature, without hurrying the circulation. For this reaſon, the Volatile Alkali, in ſmall dozes, was the only internal, and bliſtering the only external ſtimulus I had recourſe to. But though, by purſuing the above method of cure, with care and attention, many perſons recovered whom I had found to all appearance in the agonies of death, yet ſeveral, in ſpite of every means I employed to relieve them, ſunk under the violence of the diſorder.

I am happy to have it in my power to lay before the Public, a ſhort, but accurate account of the late Epidemical Catarrh, as it appeared in the town and neighbourhood of Newcaſtle upon Tyne. For this I am indebted to my Friend Dr Clark, whoſe ſingular genius for obſervation, has been long known to the medical world.

A LETTER TO Dr LESLIE, F. R. S. ON THE INFLUENZA;

As it appeared at

NEWCASTLE UPON TYNE.

BY

JOHN CLARK, M. D.

TO

DOCTOR LESLIE, F. R. S.

Newcaſtle, Dec. 23, 1782.

Dear Sir,

IN compliance with your requeſt, I ſhall endeavour to give you as accurate an account of the late Influenza, as it appeared at Newcaſtle upon Tyne, and its vicinity, as the limits which I have preſcribed to myſelf will admit. But, before I proceed, it will not be improper to make ſome obſervations on the ſtate of the air previous to the appearance, and during the progreſs of the epidemic.

November and December, 1781, were exceedingly temperate; little or no rain fell, and, except on the laſt day of the former month, there were neither froſt nor ſnow. The winds were, in gene-

ral,

ral, from weſt to ſouth weſt. The mercury in the Thermometer varied exceedingly little, generally vibrating from 40 to 46 degrees on Farenheit's ſcale, at ten a. m. and in the laſt ten days of December the weather was ſo mild, that the mercury in the Thermometer, at the ſame hour, vibrated from 49° to 52°.—The greateſt height of the Barometer, during theſe two months, was 30: the leaſt height 29.2.

On the firſt day of January, 1782, ſome ſnow fell. On the 11, 12, 13, 14, 18, and 31ſt, the froſt was moderate; during the reſt of the month the air was unuſually temperate, and dry for the ſeaſon. The winds blowed in general from the weſt. The Thermometer, at 9 a. m. commonly vibrated from 40° to 46°: its greateſt height was 51°: the leaſt height 33°.—The greateſt height of the Barometer 30.7: the leaſt height 29.

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The firſt week of February was mild. On the 7th day the wind ſhifted to the North, and continued in that quarter to the 21ſt, during which time there were froſt and ſnow, but to no great degree. The remainder of the month was very mild, the winds being weſterly, accompanied with ſlight ſhowers. The greateſt height of the Thermometer was 47°: the leaſt height 30°.—The greateſt height of the Barometer 30.8: the leaſt height 29.3.

The weather in the beginning of March was mild. On the 13th, the wind ſhifted to the north, and the weather was intenſely cold, with froſt and ſnow till the 18th. From this to the end of the month, the weather was wet, cold, and variable. The greateſt height of the Thermometer was 47°: the leaſt height 30°.—The greateſt height

height of the Barometer 30.6—The leaſt height 29.

The month of April was cold, wet, and hazy, with very few days free from rain or ſleet. The winds were generally from the North or Eaſt quarters. The greateſt height of the Thermometer was 46°: the leaſt height 37°.—The greateſt height of the Barometer 30.6: the leaſt height 29°.

In the beginning of May a very conſiderable quantity of ſnow fell in the counties of Northumberland, Durham, and Weſtmoreland; and during the reſt of the month the air continued uncommonly cold, with rain, and ſometimes ſleet. The winds in the beginning of the month were from the N. E. towards the middle to the end they generally blowed from ſouth to ſouth weſt,

weſt. The Thermometer, at ſeven o'clock in the morning, through the whole month, commonly vibrated from 38° to 45°: and, at the ſame hour, its greateſt height was 52°.—The greateſt height of the Barometer was 30.3: its leaſt height 29.2.

The beginning of June had ſcarcely the appearance of Summer; ſlight ſhowers fell in the day-time, and the nights were foggy, damp, and cold. From the 8th to the 21ſt the winds were generally from the ſouth weſt; the weather was temperate in the day-time, but ſtill continued chilly, hazy, and cold in the nights. From the 22d to the 26th the air was clear, dry, and ſultry: the Thermometer, during theſe days, at ſeven o'clock in the morning, vibrated from 60° to 64°, and, at mid-day, from 70° to 72°. This was all

the ſummer we had, for on the 27th a very remarkable change in the ſtate of the air took place: the wind ſhifted to N. W. the Thermometer at ſeven o'clock in the morning ſunk to 54°, and for 23 ſucceſſive days, it was never obſerved, at the ſame hour, to be higher than 58°. The greateſt height of the Barometer this month was 30.5: the leaſt height 29.6.

The above remarkable conſtitution of the air in the winter months, was productive of few diſeaſes; but the long ſeries of cold, damp, and wet weather, which continued throughout the whole ſpring, and beginning of ſummer, introduced colds, coughs, inflammation of the lungs, and intermittents; and theſe diſtempers, eſpecially intermittents, were unuſually prevalent in April, May, and the beginning of June. From former accounts of epidemical

mical Catarrhs, it appears, that previous to the diſtemper amongſt the human ſpecies, the horſes and dogs have been affected with defluxions of rheum from the noſe, and ſevere coughs, attended with fever. But in this part of the country, at leaſt, no ſuch complaints prevailed among theſe animals.

In this part of the kingdom, from the beſt information I have been able to obtain, the diſeaſe firſt made its appearance at Shields, the port of Newcaſtle, on or about the 26th of May; and, what is remarkable, before it ſeized any perſon in the town, ſome ſhips had arrived from *London*, where the diſeaſe was epidemic, whoſe crews had laboured under the diſtemper on their paſſage. And on the 27th and 28th of the ſame month, a very conſiderable number of veſſels came into

the harbour from the river *Thames*, after a ſail of little more than forty-eight hours. A great many of the ſailors were ſtill ill of the diſeaſe, which ſoon afterwards ſpread itſelf amongſt the reſt of the ſhips; and alſo was communicated to ſeveral families on ſhore. By the third and fourth of June, it was almoſt univerſal both in North and South Shields; and by the 14th it totally diſappeared.

Newcaſtle being only diſtant from Shields about eight miles, and the communication, both by the River and Flys, expeditious, the diſtemper ſoon made its appearance in town. The firſt family, as far as can be aſcertained, was ſeized on the 28th of May, and as the perſons who were attacked kept a public ſhop, it is more than probable, that they received the infection from ſome ſailors

ſailors who had arrived from the ſhips at Shields *. On the firſt of June, another family in a houſe adjoining was attacked: and on the ſame day two patients had every ſymptom of the complaint, who were afterwards admitted to the benefit of the Newcaſtle Diſpenſary.

But although I have fixed the firſt appearance of the Influenza in Newcaſtle to the 28th of May, yet no patient labouring under the diſtemper, came under my perſonal obſervation till the firſt of June. On the ſecond and third

* This opinion of the diſeaſe being introduced into Newcaſtle by infection, is farther confirmed by the following fact, for which I am indebted to Alexander Adams, Eſq. The maſter of a veſſel who arrived at Shields, in forty-eight hours after he left the river Thames, came to his office on the 28th of May, labouring under the diſtemper. On the 29th, one of the clerks in the office was ſeized, and as far as I can learn, was the ſecond perſon who was attacked with the diſeaſe in town.

third of the month many were ſlightly affected with heavineſs of the head, and defluxion from the noſe. On the 4th ſome were more violently ſeized, and obliged to confine themſelves to the houſe. On the 5th I viſited a great number of patients, who were ſeverely and ſuddenly attacked; and in two or three days more it prevailed univerſally throughout the town. By the 16th it had almoſt ſpent its force, and in a week more totally diſappeared. In about ſix or eight days after the epidemic appeared in Newcaſtle, the villages and cottages in the neighbourhood were attacked; and it gradually, but rapidly ſpread itſelf to the moſt northern parts of the iſland.

From whatever cauſe the preſent Influenza may have originally generated on the continent, where it was firſt obſerved;

ved; from the account which has been given of its introduction into this part of the country, there cannot remain a doubt of its being of an *infectious* nature. It is probable, however, that the manner in which it is communicated, differs widely from that of other contagions. The ſmall pox, and plague, for example, when they appear in any town or city, are gradually communicated from perſon to perſon: at firſt houſes, then ſtreets, and at laſt large portions of the town are infected. The effluvia ariſing from the bodies of the ſick, in theſe diſeaſes, not being capable of tainting the air to any conſiderable diſtance, the contagion remains for a long time in a place. But the infection of the Influenza being of an exceedingly diffuſible nature, it is reaſonable to ſuppoſe, that the contagious effluvia float in the air to a conſiderable

diſtance

diſtance, and, by being applied to the mucous glands in inſpiration, infect numbers of perſons at the very ſame inſtant of time. Hence the diſeaſe in a few days ſpreads like an univerſal conflagration in every place where it is introduced, and ſoon totally diſappears.

The propagation of Epidemical Catarrhs, which, at former periods, have ſo often infeſted Europe, and ſometimes extended themſelves to the continent of America, muſt depend upon ſome general cauſe; and none can be more univerſal than *contagion*, except *miaſmata**. But

* It has already been remarked that epidemical catarrhs have often been found to prevail amongſt brutes before the human ſpecies have been infected, which ſhews the cauſes of theſe diſtempers to be general, and probably to proceed from infectious *miaſmata* floating in the air. The epidemical Influenza of the year 1733, the moſt widely ſpreading epidemic of which we have any account, firſt appeared univerſally amongſt the horſes, before it attacked the human ſpecies; and from the collected memoirs

But whilſt I ſuppoſe that the late Influenza did not become epidemical from any change of the ſenſible qualities of the air, with reſpect to heat, cold, moiſture, or dryneſs; yet ſuch a conſtitution of the atmoſphere, as has been deſcribed to have taken place in this country, before the appearance, and

moirs of different countries, its progreſs has been accurately aſcertained. It invaded Saxony, and the neighbouring countries in Germany, about the 15th of November, 1732, and laſted in its vigour till the 29th of the month. It appeared at Edinburgh about the 17th of December; and raged at the ſame time at Baſil, in Switzerland. It appeared in London and Flanders after the firſt week in January, 1733; towards the middle of the month it reached Paris; and in the end of it Ireland. In the middle of February Leghorn was attacked; and near the end of it Naples and Madrid. It began in America before it attacked Britain, appearing in New England about the middle of October, and travelled ſouthwards to Barbadoes, Jamaica, Peru, and Mexico much at the ſame rate as it did in Europe. The diſeaſe in ſpreading from place to place, did not obſerve the direction, but went often contrary to the courſe of the winds. Theſe facts are ſtrong preſumptive proofs that the diſtemper muſt have been diſſeminated by infectious miaſmata, probably conjoined with the contagion of human effluvia.

during the prevalence of the epidemic, could not fail to render it more general and rapid in its progreſs.

But as the proſecution of a ſubject of ſo intricate a nature, as the inveſtigation of the cauſe of any epidemic, would make me go beyond the limits which I have propoſed, I ſhall return to the deſcription of the diſeaſe.

Amongſt adults, no epidemical diſtemper was ever more univerſal than the Influenza of the preſent year. The healthy and the ſtrong, the weakly and tender, thoſe confined to the houſe, and thoſe who were employed abroad, were equally liable. But the diſeaſe was particularly ſevere to the old and aſthmatic, and to women in pregnancy. Infants on the breaſt, however, were totally exempted; and, as far as came under

under my obſervation, it was neither prevalent amongſt, nor dangerous to children under ten years of age.

But although the Influenza was ſo univerſal amongſt adults, two families of my acquaintance, who uſed no means of prevention, did not take the diſtemper; and in other two families, although the males laboured under the diſeaſe, the females eſcaped. Another circumſtance worthy of remark is, if any perſons kept free from the diſeaſe for a few days after it appeared in the family in which they lived, they were not afterwards liable to be ſeized. The following was the only exception to this remark, which occurred to me during the epidemic: a young lady who was particularly active in attending her relations, who had the diſtemper in a ſevere manner in the firſt week of June,

did not take the diſeaſe till about the 24th of the ſame month. She laboured under the fever and catarrhal ſymptoms to a great degree; and, as far as I know, was the laſt perſon in the town who was ſeized with the diſtemper.

The ſymptoms which accompanied this epidemic were extremely various; but it was eaſily diſtinguiſhed by the following characteriſtic marks: "The "patients were ſeized with laſſitude, or "general ſoreneſs over the body, a dull "heavy pain in the forehead, particu- "larly acroſs the eye brows, and betwixt "the eyes themſelves. A cough ſoon "ſucceeded, with defluxions from the "noſe and eyes, attended with ſome "degree of febrile heat, and quickneſs "of pulſe."

With theſe ſymptoms many conti- nued at their occupations. But in moſt patients

patients the fever ran ſo high, as to make confinement to the houſe, and very frequently to the bed, indiſpenſably requiſite. In thoſe who were thus violently ſeized, the diſeaſe came on with coldneſs and ſhivering, and ſometimes with a giddineſs, and was ſoon ſucceeded with heat, thirſt, and inquietude. The pulſe often beat from 100 to 120 pulſations in a minute; the catarrhal ſymptoms, already mentioned, were aggravated, and, eſpecially after a fit of coughing or ſneezing, the patients often complained of ſoreneſs and pains in the breaſt. In ſome the febrile ſymptoms ran ſo high, as to threaten ſome degree of delirium. After the firſt twenty-four hours, however, the fever generally abated, but a nocturnal exacerbation with ſweating took place for ſome nights longer.

Some

Some patients were ſeized with every ſymptom of the diſeaſe, except the cough. Some had the cough and fever without any diſcharge from the noſe; and in others the defluxion from the mucous membrane of the noſe, *fauces* and *trachea* was ſo great, as to occaſion excoriation of the noſtrils, ſoreneſs in the throat, and an inceſſant troubleſome cough. A few alſo, whom I attended, complained of a total privation of their taſte, which continued for ſeveral days, and ſometimes for a week or two, after every ſymptom of the complaint had diſappeared.

The duration of the fever, in thoſe who were confined, was various. In ſome it only laſted for a day; in others it continued for a week; and in a few patients, from neglect, or improper treat-

treatment, it ran out from fourteen to twenty days, attended with many anamolous alarming ſymptoms. But the period of the fever was in general from three to four days, and its criſis was effected either by a kindly moiſture on the ſkin, or by profuſe perſpiration, which, in ſome patients, continued for forty-eight hours and longer, without intermiſſion. When the ſweat began to flow, the catarrhal affection was mitigated, and every ſymptom ſoon diſappeared, except a remarkable degree of debility. Relapſes, however, were very frequent, and, eſpecially after expoſure to cold, every ſymptom recurred with greater violence; but after a perfect recovery, no inſtance occurred where the ſame patient had the diſeaſe a ſecond time.

The Influenza, in its ſimple ſtate, though ſometimes attended with alarming

ing ſymptoms, as far as came under my obſervation, proved fatal to none. But it frequently happened, eſpecially towards the end of the epidemic, that it was complicated with pleuriſy and inflammation of the lungs, and, in old perſons, with the *peripneumonia notha*; and, in this way, it carried off ſeveral perſons in this town. It was likewiſe, ſeveral months after the epidemic had diſappeared, attended with fatal conſequences to perſons who had a tendency to conſumption; and to thoſe who had the humid aſthma.

With reſpect to the cure: As the diſeaſe in its ſimple ſtate was, in moſt caſes which occurred, free from danger, nothing more was requiſite than avoiding catching additional cold; and encouraging ſweating, eſpecially when the nocturnal exacerbation came on, by drink-

drinking weak wine whey, or any other tepid diluting drink. But when the fever ran high, beſides tepid Diluents, I found it in many caſes indiſpenſably neceſſary to preſcribe Antimonials, at firſt, in ſuch doſes as to produce gentle vomiting, and, afterwards, in ſuch a manner, as to keep up a free perſpiration. Theſe remedies, together with the *pediluvium*, and ſometimes an opiate at bed-time, in general ſoon removed every ſymptom of the diſeaſe; neither did I ever preſcribe bleeding, except the lungs were evidently inflamed: for the ſlighter pains of the breaſt were carried off as ſoon as the ſweat began to flow; the fever alſo was mitigated, and ſoon totally diſappeared.

In the anamolous caſes, which have been already mentioned, where the fever ran out for ſome weeks, the treat-

ment was more difficult. But what anſwered beſt were Emetics, Antimonials, and Opiates; and when the violence of the fever was reduced, or when remiſſions happened, *the Bark* ſometimes proved of ſingular advantage.

In the complicated ſtate of the Influenza, attended with ſymptoms of active inflammation of the *Pleura*, or Lungs, I preſcribed V. S. freely, and ſometimes had occaſion to repeat it for three or four times. But when the ſymptoms of inflammation did not run high, this evacuation was more ſparingly uſed. Antimonials, Pectoral Decoctions, and Infuſions were given; as alſo mixtures with Gum Ammoniacum, and Oxymel of Squills, when expectoration began to flag. Bliſters were early applied, and repeated as often as occaſion required. Theſe medicines, together with an opiate occaſionally at bed-

time,

time, ſeldom failed to conduct the patient through this dangerous ſtate of the diſeaſe.

When the Influenza was complicated with *peripneumonia notha*, known by a pain over the whole breaſt; quick, wheezing, and rattling reſpiration; lividity of countenance, with little or no quickneſs of pulſe; the only chance of recovery was to ſupport the ſtrength of the patient by wine, and cordials; and to relieve the lungs, from the accumulation of ſerum, by Antimonial Emetics, Bliſters, and expectorating mixtures, with Oxymel of Squills, or Antimonial Wine.

Having thus, though very imperfectly, given you an account of the riſe and progreſs of the Influenza, as it appeared at Newcaſtle, and its vicinity, permit

mit me, my dear friend, before I conclude, to expreſs my moſt ardent wiſhes for your recovery from your preſent complaints, which have made a voyage to a more temperate climate ſo indiſpenſable. May you ſoon return in perfect health; and may your life be long preſerved for the benefit of the medical profeſſion.

I am,

With the utmoſt eſteem and friendſhip,

Dear Sir,

Your moſt obedient Servant,

JOHN CLARK.